

SHORT TERM COURSE

ON

SYSTEM THINKING AND ENVIRONMENTAL ENGINEERING FOR SUSTAINABLE DECISION MAKING

(JUNE 03 – JUNE 07, 2019)

SPONSORED BY:

TECHNICAL EDUCATION QUALITY IMPROVEMENT PROGRAMME (TEQIP)



ORGANIZED BY

**INDIAN INSTITUTE OF TECHNOLOGY ROORKEE, ROORKEE-247667,
UTTARAKHAND, INDIA**

Overview:

In 21st century human society is under the threat of sustainability. Many industries are also under tremendous pressure due to stringent environmental norms, complex social issues and lower profit margins. To survive in such a competitive market, wise decision making is highly essential to optimize the performance of an industry and to ensure its survival. Since, the scenario involves multiple factors, decision making needs a proper thought and analytical skills; simple linear thinking based decision cannot give a sustainable solution. Knowledge of resource usage optimization is also essential for decision makers to take a wise decision.

Objective:

Under the above background, objective of the proposed course is to impart knowledge of system approach, sustainability, environmental quality, optimization of resource usage and various analytical tools for wise decision making to achieve sustainability goal of any industry as well as society.

Course contents:

1. System approach fundamentals
2. Concepts of sustainable development
3. System engineering methods and sustainability
4. Environmental resources and projection of population growth
5. Environmental quality and sustainability
6. Environmental impact assessment
7. Life cycle analysis
8. Risk analysis
9. System dynamics simulation
10. Optimization of resource (energy and water) usage
11. Sustainability analysis
12. Decision making for sustainable development
13. Case studies on sustainable decision making for urban water management, climate change effects on business policy, sustainable road transport etc.

Who can attend:

Faculty members of TEQIP approved institutions with qualification as per TEQIP rule.

Fees: THERE IS NO FEES FOR PARTICIPATION .

Faculty:

The faculty of the course will be highly experienced personnel from Academic, R & D Institutions and field drawn from IIT Roorkee and other renowned institutions / industries.

About Roorkee:

The city of Roorkee average elevation above the sea level: 268 m) is situated in the foothills of the Himalayas and in District Haridwar of Uttarakhand State, India. It is considered to be the gateway to the pilgrimage of many renowned places like Haridwar, Rishikesh, Dehradun and Mussorie. It is well connected by road: NH 58 at a distance of 165 km from Delhi. It has picturesque landscape with grand spectacle of Himalayan ranges stretching in the east and northwest and is blessed with the holy Ganges Canal flowing through the centre of the city. Roorkee has world famous IIT, earlier known as University of Roorkee and other renowned institutions like CBRI, NIH, BEG&C etc. BHEL, Hardwar is only 30 Km away from this place. The nearest airports to Roorkee are Dehradun and Delhi.

Last date for Registration: 20th May 2019

Nomination:

Nomination on enclosed form may be sent to the following addresses latest by May 20, 2019

**Dr. Prasenjit Mondal, Department of Chemical Engineering, IIT Roorkee, Roorkee-247667,
Uttarakhand, India, Ph.No.: (+91)- (0)1332-285181,
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INDIAN INSTITUTE OF TECHNOLOGY ROORKEE

Registration Form

System Thinking and Environmental Engineering for Sustainable Decision Making

(June 03 – June 07, 2019)

Sponsored by:

Technical Education Quality Improvement Programme (TEQIP)

- Name
- Designation
- Qualification
- Affiliation
- Email id:
- Phone No:
- Accommodation required: **Yes / No**
(Boarding and lodging will be arranged as per TEQIP norms)

Date:

Signature of the participant

Sponsoring Authority:

Designation

Office seal

Date:

Note:

The Complete form may please be sent to the following address latest by May 20, 2019.

**Dr. Prasenjit Mondal, Department of Chemical Engineering, IIT Roorkee, Roorkee-247667,
Uttarakhand, India, Ph.No.: (+91)- (0)1332-285181,
e-mail: pmondfch@iitr.ac.in, mondal2001@gmail.com**